TELIDENT, INC.

ONE MAIN STREET SE • SUITE 85 • MINNEAPOLIS, MN 55414
(800) 536-4911 • (612) 623-0911 • FAX (612) 623-0944

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BY MAIL

October 17, 1996

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
Room 222
1919 M Street, NW
Washington, D.C. 20554

RE: Ex Parte Meeting
CC Docket No. 94-102

Dear Mr. Caton:

Today, Martin Moody on behalf of Telident, Inc., spoke with Alan Thomas, Gregory Cooke, Bill von Alven, and Anne Bisese of the Common Carrier Bureau. During that meeting, he discussed the enclosed document. It outlines suggested changes to NPRM 94-102 Appendix C.

An original and one copy of this Notice are being submitted to the Secretary, with a copy sent as well to each of the meeting attendees. Please contact me if you have any questions regarding this matter.

Respectfully submitted,

Martin Moody
Vice President Advanced Engineering
TELIDENT, INC.

Enclosure
cc: Bill von Alven
Anne Bisese
Gregory Cooke
Alan Thomas

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CC Docket No. 94-102
RM-8143

NOTICE OF PROPOSED RULE MAKING

APPENDIX C

PROPOSED RULES

CHANGES to the NPRM's proposed text are bold, and numbered C1, C2, etc

Part 68 of the Commission's Rules and Regulations (Chapter 1 of Title 47 of the Code of Federal Regulations, Part 68) is proposed to be amended as follows:

1. The authority citation for Part 68 remains as follows:

AUTHORITY: Sections 1, 4, 5, 201-205, 208, 215, 218, 226, 227, 302, 303, 313, 314, 332, 403, 404, 410, 602 of the Communications Act of 1934, as amended, 47 U.S.C. 151, 154, 155, 201-5, 208, 215, 218, 226, 227, 302, 303, 313, 314, 332, 403, 404, 410, 602.

2. Section 68.1 is proposed to be amended by deleting the present Section 68.1 in its entirety and substituting the following:

§ 68.1 Purpose

The purpose of the rules and regulations in this part is to provide for uniform standards for the protection of the telephone network from harm caused by the connection of terminal equipment and associated wiring thereto, for the correct operation of terminal equipment with public emergency access networks, and for the compatibility of hearing aids and telephones.

C1. Section 68.2 is proposed to be amended by revising subparagraph (3) to expand the Scope to include the connection of terminal equipment for Enhanced 911 access for dispersed station applications.

Section 68.2 Scope

(3) of all PBX or multi-line telecommunications (or similar) systems to private line services for tie trunk type interfaces, off-premises station lines, automatic identified outward dialing, message registration, **and dedicated Enhanced 911 system access.**

3. Section 68.3 is proposed to be amended by inserting, according to the alphabetical order of the term defined, each of the following definitions among the definitions already present:
C2. There are modifications to the proposed definitions and additional definitions proposed. There is a change proposed to a table accompanying Figure 68.3(a).

*****

Caller's Emergency Service Identification (CESID): The number used to identify the calling terminal within the context of the Enhanced 911 System. It is often, but not always, the directory number of the calling terminal.

*****

DELETE THIS PROPOSED DEFINITION:

~~*Enhanced 9-1-1:* A telephone network feature that automatically provides emergency response agencies with telephone directory number and location information on calls placed to the national emergency number, 9-1-1.~~

*****

MODIFY THIS PROPOSED DEFINITION:

Enhanced 9-1-1 compatibility: The ability to **provide the caller's emergency service identification to the Enhanced 911 System. The CESID may be the trunk group or business line ID that is provided by the network (non-dispersed station applications), or may be provided by the MLTS equipment (including the use of an adjunct) utilizing Enhanced 911 emergency services trunks (dispersed station applications).**

*****

MODIFY THIS PROPOSED DEFINITION:

Enhanced 9-1-1 emergency services trunk: A 2-wire **network-provided reverse battery circuit** that provides access to Enhanced 9-1-1 service.

*****

Enhanced 911 System: Emergency service switching and transport equipment that routes (based on the CESID) 911 calls to Public Safety Answering Points (PSAPs), and provides the CESID to the PSAP.

*****

Dispersed private telephone system: A PBX or similar multi-line telephone system whose connection to the telephone network carries emergency calls from more than one emergency response location.

*****

UNDER DEFINITION BY PUBLIC SAFETY, AD-HOC, MMTA, et al

Emergency response location: A specific site, ~~corresponding to a calling station in a dispersed private telephone system.~~

*****

MODIFY AN EXISTING DEFINITION:

Line Simulator Circuit: A circuit that simulates the network side of a 2-wire or 4-wire telephone connection during testing. The required circuit schematics are shown in Figure 68.3 (a) for 2-wire loop or ground start circuits **and 2-wire network-provided reverse battery circuits,** Figure 68.3 (b) for 2-wire.....etc..

*****

Multi-line Telecommunication System (MLTS): Switching equipment that gives many telephones (i.e. stations) access to public network trunks for making phone calls. An MLTS may utilize an adjunct piece of equipment to provide Enhanced 911 compatibility. MLTS includes Private Branch Exchange (PBX), Multi-Function (Hybrid) System, and Key Telephone System (KTS) equipment.

*****

Multi-frequency signaling: An address signaling method that uses the simultaneous transmissionof two sinusoidal frequencies from a group of six frequencies to represent numerical values and control signals.

*****

Network-Provided Reverse Battery: A type of supervisory signaling employing network-provided dc power. Terminal equipment provides a high resistance tip to ring path (>100 kilohms) to indicate an on-hook condition and a low resistance tip to ring path (<670 ohms) to indicate an off-hook condition. Terminal equipment recognizes the polarity of tip more positive than ring as a network on-hook signal and tip more negative than ring as a network off-hook signal.

Figure [68.3 (a)]

[Same as existing Figure, with the following new entry:

	Network-provided Reverse Battery		
Condition	**Volts**	**Switch Position**	**R2 + RL**
1	**35 to 80**	**Both**	**Continuously variable over 400 to 4200 ohms**

*****

Restriction: The blocking of specific dial codes and sequences during call initiation.

****

****

UNDER DEFINITION BY PUBLIC SAFETY, AD-HOC, MMTA, etc.
Section 68.106

****

3. Section 68.106 is proposed to be amended to read as follows:

§ 68.106 [Amended]

*****

(f) *Dispersed private telephone system trunk and station number verification for Enhanced 911 purposes.* ~~Customers who install dispersed private telephone systems after [insert date 18 months after effective date of order adopting rules in this proceeding] shall provide the telephone company with:~~

~~(1) The number of trunk connections desired~~

~~(2) The number of stations that may originate emergency calls~~

~~(3) The number of, and identification of emergency response locations that will require number identification.~~

~~(4) The FCC Registration Number of the equipment being used. The telephone company will provide 10-digit numbers for the identified emergency response locations.~~

****

UNDER DEFINITION BY PUBLIC SAFETY, AD-HOC, MMTA, etc.
Section 68.228

****

Section 68.228 is proposed to be added as follows:

§ 68.228 Enhanced 911 trunk and station number verification.

(a) *Verification requirements.*

(1) *General.* ~~The proper transmission of station number identification (SNI) for the station dialing the emergency number 911 shall be verified as part of initial installation and subsequent changes in emergency response location data.~~

(2) *Station Number Identification.* ~~The 10-digit station number identification transmitted for 911 calls shall be verified to:~~

~~(i) be in the group of station numbers assigned to the trunk by the telephone company and, (ii) be assigned to the specific emergency response location of the corresponding calling station.~~

(b) *Verification personnel.* ~~Work associated with the verification of Enhanced 911 emergency services trunk operation shall be performed under the supervision and control of a supervisor as defined in paragraph (c) of this section. The supervisor and installer may be the same person.~~

(c) *Supervision.* ~~Work by installation personnel shall be performed under the responsible supervision and control of a person who:~~

~~(i) Has at least 6 months of on-the-job experience in the installation of telephone terminal equipment;~~

~~(ii) Has been trained in the operation of Enhanced 911 emergency services trunks and in the performance of operations need to verify proper identification procedures and results.~~

~~(iii) Or, regardless of compliance with paragraphs (c)(1) and (c)(2) of this section, is a licensed professional engineer in the jurisdiction in which the installation is performed.~~

(d) *Verification procedure.* ~~The installation supervisor shall provide written notification to the telephone company that the required verification tests have been performed, including the following information:~~

~~(1) The responsible supervisor's full name, address and business telephone number; and~~

~~(2) The date when Enhanced 911 trunks will go into service, the date when the verification tests were completed, and a list of trunk identification numbers and station numbers verified.~~

(e) *Verification of changes.* ~~Addition or deletion of Enhanced 911 data base entries will be cause for verification of operations.~~

3. Section 68.308 is proposed to be amended to read as follows:

§ 68.308 Signal power limitations.

C3. Add a new paragraph to define the signal power limitations for MF signaling.

*****

68.308 (b) (2) (iii) For 911 applications that use 2-wire network-provided reverse battery circuits with multi-frequency signaling, under all operating conditions the maximum MF signal power delivered to a 600 ohm termination when averaged over three seconds shall not exceed -6 dBm.

*****

(b) ***

(5) ***

[In the table "MAXIMUM ALLOWABLE NET AMPLIFICATION BETWEEN PORTS (A) (B) (E) (F)" should show that enhanced 911 trunks operate with the same requirements as Public Switched Network Ports (2-Wire) by adding the words "Enhanced 911 trunks" after "Public Switched Network Ports (2-wire)" in the first box at the top of the second column from the right.]

*****

C4. Change the titles of items (b) and (g) within Section 68.310. The text does not change.

68.310 (b) Registered One-Port Terminal Equipment for 2-wire Non-data Applications with Loop-Start, **Network-Provided Reverse Battery,** Ringdown, Inband Signaling, or Voiceband Metallic Channels.

68.310 (g) Registered Multi-Port Equipment for Loop-Start **and Network-Provided reverse Battery** Applications.

*****

C5. THE FOLLOWING CHANGES/ADDITIONS/DELETIONS TO THE PROPOSED SECTION 68.320 ARE RECOMMENDED :

Section 68.320 is proposed to be added as follows:

§ 68.320 Enhanced 911 compatibility: technical standards.

DELETE PROPOSED ITEMS (a) and (b)

~~(a) *Trunk interface.* Enhanced 911 trunks are analog two-wire or four-wire channels supporting either E&M type 1 or E&M type 3 signaling.~~

~~(b) *Station Number Identification signaling.* The station number identification (SNI) code assigned to the emergency response location of a 911 caller will be sent from the registered equipment to the telephone company 911 system using multifrequency (MF) tone pulses, prompted by a solid off-hook indication from the telephone network.~~

ADD HEADING/MODIFIED TEXT/RENUMBER/etc.

General Requirements for MLTS equipment:

(a)~~(c)~~ *Operability.* It shall be possible to access the Enhanced 911 trunk in emergencies whether or not system features are used that block access to normal dial trunks (i.e., restriction of all calls beginning with "9"). Access shall be provided whether users dial 911 or additional digits preceding 911.

(b)~~(c)~~ *Attendant Notification.* Equipment manufactured or imported after [insert date: one year after the effective date of the order adopting rules in the proceeding], or installed after [insert date: 18 months after the effective date of the order adopting rules in this proceeding], must **have the optional capability** of notifying an attendant or on-premises personnel, if present, and of providing station number identification and emergency response location to the attendant when a 911 call is dialed.

(c)~~(g)~~ *Labeling Requirements.* PBX and dispersed telephone systems manufactured or imported one year from the effective date of § 68.320 shall comply with this section. Equipment of earlier manufacture shall comply with the subsection if installed [insert date: eighteen months from the effective date of the section] or any time thereafter. If **the equipment is** already registered but not compliant with §68.320, an **Enhanced 911 compatibility feature set** must be registered by the manufacturer or other person responsible for equipment compliance with Part 68, **or adjunct equipment that is compliant with Section 68.320 must be optionally available. In addition, instructions providing detailed information on Enhanced 911 compliance must be part of the equipment packaging.**

Dispersed private telephone systems and associated station equipment that are domestically manufactured or imported on or after [Insert date: 30 days, but not later than one year, from the effective date of the order adopting rules in this proceeding] that does not comply with §68.320 must be labeled by the manufacturer with a warning describing its limitations for those attempting to use it to call enhanced 911. The warning must appear on the devices and on the outside of the packaging in which it is marketed. The domestic manufacture or importation of

dispersed private telephone system equipment that does not comply with §68.320 must cease as of one year from the effective date of §68.320.

Specific Requirements for MLTS equipment supporting dispersed station applications:

(a)~~(f)~~ *Information Requirements.* Equipment manufactured or imported after [insert date: one year after the effective date of the order adopting rules in this proceeding], or installed after [insert date: 18 months after the effective date of the order adopting rules in this proceeding], must **be compatible with Enhanced 911, through configuration, optional dedicated Enhanced 911 system access, or the use of adjunct equipment/dedicated 911 system access. A unique Caller's Emergency Service Identification (CESID) associated with the emergency response location of the 911 caller must be supplied to the Enhanced 911 System.**

(i) configuration. 911 calls from emergency response locations are associated with specific trunk groups or business phone lines. The CESID is identified by the serving end office. A dedicated Enhanced 911 emergency services trunk is not required.

(ii) optional dedicated Enhanced 911 system access. The MLTS equipment supplies the CESID associated with the emergency response location of the 911 caller, using a dedicated Enhanced 911 emergency services trunk.

(iii) adjunct equipment/dedicated Enhanced 911 system access. The MLTS/adjunct equipment supplies the CESID associated with the emergency response location of the 911 caller, using a dedicated Enhanced 911 emergency services trunk.

(b) Enhanced 911 emergency services trunk. The American National Standard ANSI T1.411-1995, *Interface between Carriers and Customer Installations – Analog Voicegrade Enhanced 911 Switched Access Using Network-Provided Reverse-Battery Signaling* defines the interface requirements for the interconnection of MLTS systems to Enhanced 911 systems. The interface allows the MLTS (or MLTS/adjunct) to transmit the CESID information to an Enhanced 911 System. The minimum number of Enhanced 911 emergency services trunks connecting a private switch to the telephone network shall be one (1). Additional trunks shall be added to maintain an availability of P = 0.01 based on the number of users served, **or to satisfy local requirements and/or tariffs.**

(c) Additional Enhanced 911 emergency services interfaces for MLTS equipment, based on American National Standards, and when available, will be included in this section.

01 INCLUDES:
1. Corrected 68.2 subparagraph 3 (includes "AIOD" and message registration phrases)
2. Emergency Response Location (ERL) definition as an action item for Public Safety et al
3. Includes the definition for MLTS

02 INCLUDES:
3. Removed the last sentence in 68.320 (b)(e): "Attendant notification can be optionally provided through the usage of adjunct equipment.". The usage of adjunct eqpt is included in the term "optional capability"
4. Spelling corrections

03 INCLUDES:
5. Strike throughs of deleted text